

A NEW SPECIES OF *LIODROSOPHILA* DUDA  
(DIPTERA: DROSOPHILIDAE)

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**Abstract**

*Liodrosophila macera* sp. nov. is described from north Queensland.

**Introduction**

The genus *Liodrosophila* Duda contains about 50 species, largely of Oriental and Australian (New Guinea, north Queensland) distribution. The species are typically small dark flies with metallic colorations on the front and mesonotum; the scutellum is typically velvety black. A full diagnosis is given in Bock (1982), with notes on the five known Australian species.

A single specimen recently received from the Australian National Insect Collection (ANIC), C.S.I.R.O. Division of Entomology, Canberra, represents a species hitherto unknown from Australia and not referable to any other described species. The specimen is missing a few macrochaetae, but is very distinctive and easily separable from other known species. It is described below in the form used previously for Australian Drosophilidae (Bock 1982).

*Liodrosophila macera* n. sp.

*Type*.—Holotype ♀, 15: 17S 145: 13E 1 km N of Rounded Hill, Qld. (south road side track), 7.x.1980, D. H. Colless (ANIC).

*Distinguishing features*.—Arista fan-like; body slender; wing with pattern of pale spots against darker background; head and thorax with reduced setation as described below.

*Body length*.—2.5 mm.

*Head*.—Arista very large, with 7 long apically curved rays above and 2 straight rays below plus small terminal fork, rays long basally progressively shortening apically. Front 1.3 times broader than long, glassy blackish brown with metallic tinge (except for dull narrow band on each side characteristic of genus), smoothly rounded on to occiput. 2nd and 3rd antennal segments dusky. Carina very prominent, rather noselike but almost squared at lateral and ventral margins. Face glassy. Palp small, dusky tan, with apical bristle. Cheek linear. Eye with trace only of fine pile; greatest diameter of eye oblique. Single orbital bristle only present, slightly reclinate. Ocellar bristles large. Postverticals absent. Single vertical bristle only present.

*Thorax*.—Mesonotum blackish brown, glassy with metallic tinge, very finely punctate, with patch of very fine whitish scales posteriorly between dorso-central bristles tapering anteriorly towards mid-line. Two weak rows of acrostichal hairs present in extended lines of single pair of large dorsocentral bristles. Scutellum velvety black; posterior bristles broken off but clearly large; anterior scutellars very short and fine, almost vestigial, close to posterior

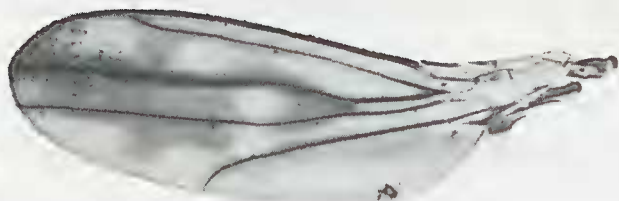


Fig. 1. *L. macera*, wing.

bristles. Pleura glassy blackish brown with strong violet metallic tinge, with single large sternopleural bristle. Haltere pale tan with anterior darkening. Legs largely pale tan, darker apically on femora and on tibiae; fore-femur darker brown; fore-tibia almost black.

*Wing.* (Fig. 1)—Slender, weakly brownish with pattern of pale spots, especially 3 large spots between 2nd and 3rd longitudinal veins, single spot between 3rd and 4th veins at level of posterior crossvein, and adjacent spot about latter. Anal vein absent. C-index 2.3; 4V-index 2.5; 5X-index 1.9; M-index 0.6. Heavy setation on costa weak, on 3rd costal section on basal *ca* 0.5. Length 2.0 mm.

*Abdomen.*—Tergite 1 tan anteriorly, black posteriorly. Remainder of abdomen shiny black.

*Female genitalia.*—Egg guide strong, apically pointed with a few small teeth.

*Relationships.*—This species most closely resembles *L. formiciformes* Bock, also known from north Queensland, especially in possessing a fan-like arista, a large carina, similar body (including eye) with wing shapes, and similar coloration (although the fore-leg in *formiciformes* is paler). *L. macera* differs from *formiciformes* in possessing a smooth front and face, only 1 pair of dorsocentral bristles, large ocellar bristles and a patterned wing (front and face finely punctate, 2 pairs of dorsocentral bristles, minute ocellars and clear wing in *formiciformes*). There seems little doubt that the two species are closely related.

#### Acknowledgements

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#### Reference

- Bock, I. R., 1982. Drosophilidae of Australia V. Remaining genera and synopsis. *Aust. J. Zool., Suppl. Ser.* 89.